

REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Objection to Claim 7

This objection has been addressed by amending claim 7, line 4, in the manner suggested in item 3 on page 3 of the Official Action.

2. Rejection Under 35 USC §112, 2nd Paragraph

This rejection has been addressed by amending claim 1 to clarify that the frame buffer and temporary buffer store frame data from different parts of the bit-stream data, and that the data in the frame buffer is already decoded while the data in the temporary buffer is stored there for real time decoding during display of the still picture..

3. Rejection of Claims 1, 5, and 13 Under 35 USC §102(e) in view of U.S. Patent No. 6,594,315 (Schultz)

This rejection is respectfully traversed on the grounds that the Schultz neither discloses nor suggests a high-resolution *still picture* decoding device arranged to display a *still picture* while limiting memory usage, by decoding only a part of the bit-stream data in the bit stream buffer as the frame data for storage in a frame buffer (so that the size of the frame buffer can be kept small), while repeatedly or cyclically decoding the other part of the bit stream data that has been stored in a **temporary buffer** (*real-time* decoding), **both the frame buffer and temporary buffer outputting decoded data to enable display of the still picture**. Instead, Schultz discloses an MPEG (compressed moving picture) decoder in which one memory holds compressed data for decompression into the other memory.

The device of Schultz not only fails to disclose or suggest a still picture display, but the respective memory 60 and display buffer 64 of Schultz are used for purposes that are different from and unsuitable for the frame memory and temporary buffer utilized by the claimed still

picture display, namely storing lines of compressed data (memory 60 of Schultz) and storing data decompressed from the memory 60 (display buffer 64 of Schultz).

In the still picture display device of the claimed invention:

- the frame buffer stores a part of the frame data that has been decoded from a part of the bit-stream data and corresponds to the still picture,
- the temporary buffer is provided to store the other frame data from the other part of the bit-stream data which has not been decoded and which is to be decoded in real time as the still picture is being displayed, and
- **“the decoded frame data in the frame buffer AND the real-time decoded frame data from the temporary buffer are output for displaying a high-resolution still picture.”**

In contrast, in the display device of Schultz, memory 60 holds compressed data for decompression. Compressed data must be decompressed before output to a display, whether still or not.

Instead of teaching decoding part of a still picture bit stream and storing it in the usual frame buffer, while temporarily storing and real time decoding the other part of the bit stream to complete a still picture with reduced memory, the Schultz patent is directed to formatting of recompressed data in an MPEG decoder, in which an MPEG compatible signal processor decompresses compressed MPEG data, and the decompressed data is data-reduced by a subsampling network and a recompression network. This formatting procedure has nothing to do with the claimed still picture decoding, and the respective memories disclosed in Schultz do not correspond to those of the claimed invention.

In particular, as explained in col. 1, line 66 go col. 2, line 4 of the Schultz patent, subsampled data from the sampling network is reordered before being provided to the recompression network, and the respective memories are then used to store compressed data before decompression, and decompressed data thereafter. As shown in Fig. 1 and described in col. 6, lines 56-65 of Schultz, compressed pixel data stored in memory 60 of Schultz is processed

for display by means of a display processing network including a display decompressor 62, FIFO display buffer 64, multiplexer 68, and display processor 70. Display buffer 64 holds sixteen image lines, divided between a pair of eight-line buffers. Decompressed data for display processing is read from one of the line buffers via multiplexer 68 while the other line buffer is being filled with decompressed data from unit 62. This has the effect of improving efficiency of data decompression, but does not enable display of still pictures or limit the size of memory required to display the still pictures.

In summary, memory 60 of Schultz differs from the claimed “temporary buffer,” and display buffer 64 of Schultz differs from the claimed “frame memory,” in at least the following respects:

- (i) **the memory 60 of Schultz is provided for storing compressed pixel data, whereas the temporary buffer of the claimed invention is used to store real-time decoded frame data for display, and**
- (ii) **the display buffer 64 of Schultz stores decompressed data (image lines), which is decompressed from the memory 60, whereas the frame buffer of the claimed invention is used to store decoded frame data, which is decoded from the bit stream buffer, for display.**

As a result, the display buffer 64 of Schultz is not equivalent to the frame buffer of the claimed invention, and the memory 60 of Schultz does not correspond to the claimed temporary since the decoded frame data in the temporary buffer is for outputting a still picture while decompressed pixel data in the memory 60 of Schultz is for being decompressed by the decompressor 62. Withdrawal of the rejection of claims 1, 5, and 13 is accordingly requested.

Having thus overcome each of the rejections made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

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Respectfully submitted,

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